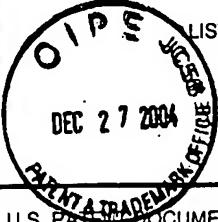


Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268		SERIAL NO. 10/822,118	
 <p>LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)</p>				APPLICANT: Gurtej S. Sandhu et al.			
				FILING DATE April 8, 2004		GROUP 2812	
U.S. PATENT DOCUMENTS							
*Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
DV	AA	6,753,618	06/2004	Basceri et al.	257	915	—
	AB	5,470,784	11/1995	Coleman	437	101	—
	AC	2003/0219942 A1	11/2003	Choi et al.	438	253	—
	AD	2004/0245560 A1	12/2004	Pontoh et al.	257	309	—
	AE	2004/0245559 A1	12/2004	Pontoh et al.	257	306	—
	AF	2004/0046197 A1	03/2004	Basceri et al.	257	296	—
	AG	2004/0043228 A1	03/2004	Derderian et al.	428	446	—
	AH	2003/0213987 A1	11/2003	Basceri et al.	257	296	—
DV	AI	2003/0205729 A1	11/2003	Basceri et al.	257	200	—
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ						
	AK						
	AL						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AM						
	AN						
	AO						
EXAMINER <i>Shuland</i>		DATE CONSIDERED <i>12/03/05</i>					
<p>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</p>							

EV372471461

04/06/05

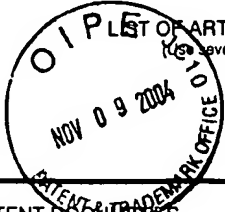
04/06/2005 13:12 FAX 5098383424

WELLS ST JOHN PS

004/004

Sheet 1 of 1

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE			ATTY. DOCKET NO. M122-2268		SERIAL NO. 10/822,118	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)					APPLICANT: Gurtej S. Sandhu et al.			
					FILING DATE April 8, 2004		GROUP 2812	
<b>U.S. PATENT DOCUMENTS</b>								
*Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate	
DV	AA	5,955,244	09/1999	Duval	430	314	—	
	AB	6,350,560	02/2002	Sahbari	430	325	—	
	AC	6,844,131	01/2005	Oberlander et al.	430	270.1	—	
DV	AD	5,406,123	04/1995	Narayan	257	767	—	
	AE							
	AF							
	AG							
	AH							
	AI							
<b>FOREIGN PATENT DOCUMENTS</b>								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AJ							
	AK							
	AL							
<b>OTHER REFERENCES (Including Author, Title, Date, Pertinent Pages, Etc.)</b>								
	AM							
	AN							
	AO							
EXAMINER		DATE CONSIDERED						
		12/03/05						
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. (Include copy of this form with next communication to applicant.)</small>								


Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268		SERIAL NO. 10/822,118	
				APPLICANT: Gurtej S. Sandhu et al.			
				FILING DATE April 8, 2004		GROUP 2812	
U.S. PATENT DOCUMENTS							
*Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
DV	AA	10/932,218	Basceri et al.			09/01/04	
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
FOREIGN PATENT DOCUMENTS							
	Document Number	Date	Country	Class	Subclass	Translation	
						Yes	No
	AJ						
	AK						
	AL						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AM						
	AN						
	AO						
EXAMINER <i>Pauland</i>		DATE CONSIDERED 12/03/05					
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

Form PTO-1449 <b>U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE</b>		<b>ATTY. DOCKET NO.</b> MI22-2268		<b>SERIAL NO.</b> 10/822,118	
<b>LIST OF ART CITED BY APPLICANT</b> (Use several sheets if necessary)		<b>APPLICANT:</b> Gurtej S. Sandhu et al.			
<b>FILING DATE</b> April 8, 2004		<b>GROUP</b> 2812			

U.S. PATENT DOCUMENTS								
Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate	
DV	AA	3,349,474	12/1963	D. H. Rauscher				
	AB	5,904,517	05/1999	Gardner et al.	438	197		
	AC	5,998,264	12/1999	Wu	438	260		
	AD	6,180,465 B1	01/2001	Gardner et al.	438	291		
	AE	6,207,485 B1	03/2001	Gardner et al.	438	216		
	AF	6,548,854 B1	04/2003	Kizilyalli et al.	257	310		
	AG							
	AH	2003/0045060 A1	03/2003	Ahn et al.	438	287		
	AI	2003/0045078 A1	03/2003	Ahn et al.	438	585		
FOREIGN PATENT DOCUMENTS								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
DV	AJ	EP 0 851 473 A2	01/1998	EPO			X	
	AK							
	AL							
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)								
DV	AM	Chang et al., Silicon surface treatments in advanced MOS gate processing, Microelectronic Engineering, (2004), pages 130-135						
DV	AN	Lemberger et al., Electrical characterization and reliability aspects of zirconium silicate films obtained from novel MOCVD precursors, Microelectronic Engineering (2004), pages 315-320						
DV	AO	Lu et al., Effects of the TaN <sub>x</sub> interface layer on doped tantalum oxide high-k films, VACUUM (2004), pages 1-9						
<b>EXAMINER</b> <i>Richard</i>		<b>DATE CONSIDERED</b> <i>12/03/05</i>						
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268		SERIAL NO. 10/822,118	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Gurtej S. Sandhu et al.			
				FILING DATE April 8, 2004		GROUP 2812	
<b>U.S. PATENT DOCUMENTS</b>							
*Examiner's Initials		Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
	AA						
	AB						
	AC						
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes      No
	AJ						
	AK						
	AL						
<b>OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)</b>							
DV	AM		Robertson et al., Atomic structure, band offsets, growth and defects at high-K oxide:Si interfaces, Microelectronic Engineering (2004) pages 112-120				
DV	AN		Singh et al., High and Low Dielectric Constant Materials, The Electrochemical Society <i>Interface</i> , Summer 1999, pages 26-30				
	AO						
EXAMINER: <i>Shuland</i>		DATE CONSIDERED <i>12/03/05</i>					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268	SERIAL NO. 10/822,118	
<div style="text-align: center;">  <p>LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)</p> </div>				APPLICANT: Gurtej S. Sandhu et al.		
				FILING DATE April 8, 2004	GROUP 2812	
U.S. PATENT DOCUMENTS						
*Examiner's Initials	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
DV	AA	4,086,074	04/78	Minot et al.		
	AB	4,693,910	09/87	Nakajima et al.		
	AC	4,766,090	08/88	Coquin et al.		
	AD	5,099,304	03/92	Takemura et al.		
	AE	5,670,298	09/97	Hur		
	AF	6,037,239	03/00	Jennings		
	AG	6,096,621	08/00	Jennings		
	AH	6,130,140	10/00	Gonzalez		
DV	AI	6,133,105	10/00	Chen et al.		
FOREIGN PATENT DOCUMENTS						
	Document Number	Date	Country	Class	Subclass	Translation Yes No
	AJ					
	AK					
	AL					
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)						
DV	AM	ABSTRACT: How to Eliminate Voiding in Porous-Low-k Dielectrics and The Mechanism of Void Formation; Lin et al.; 4 pages				
DV	AN	COB Stack DRAM Cell Technology beyond 100 nm Technology Node; Yongjik Park & Kinam Kim; pp. 349.1 - 349.3;				
	AO					
EXAMINER <i>Finland</i>		DATE CONSIDERED 12/03/05				
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.						

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268		SERIAL NO. 10/822,118	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Gurtej S. Sandhu et al.			
				FILING DATE April 8, 2004		GROUP 2812	
U.S. PATENT DOCUMENTS							
*Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date if Appropriate
DV ↓ DV	AA	6,133,116	10/00	Kim et al.	_____	_____	_____
	AB	6,156,674	12/00	Li et al.	_____	_____	_____
	AC	6,177,235 B1	01/01	Francou et al.	_____	_____	_____
	AD	6,277,709 B1	08/01	Wang et al.	_____	_____	_____
	AE	6,277,728 B1	08/01	Ahn et al.	_____	_____	_____
	AF	6,281,100 B1	08/01	Yin et al.	_____	_____	_____
	AG	6,291,363 B1	09/01	Yin et al.	_____	_____	_____
	AH	6,380,611 B1	04/02	Yin et al.	_____	_____	_____
AI	6,383,723 B1	05/02	Iyer et al.	_____	_____	_____	
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ						
	AK						
	AL						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AM						
	AN						
	AO						
EXAMINER <i>Shuland</i>		DATE CONSIDERED <b>12/03/05</b>					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268		SERIAL NO. 10/822,118	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Gurtej S. Sandhu et al.			
				FILING DATE April 8, 2004		GROUP 2812	
U.S. PATENT DOCUMENTS							
*Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
DV	AA	6,440,793 B1	08/02	Divakaruni et al.			
	AB	6,465,325 B2	10/02	Ridley et al.			
	AC	6,720,638 B2	04/04	Tran			
DV	AD	6,780,728	08/04	Tran			
	AE						
	AF						
	AG						
	AH						
	AI						
FOREIGN PATENT DOCUMENTS							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ						
	AK						
	AL						
OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)							
	AM						
	AN						
	AO						
EXAMINER <i>Shuland</i>		DATE CONSIDERED <i>12/03/05</i>					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							



Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268		SERIAL NO. 10/822,18	
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Gurtej S. Sandhu et al.			
				FILING DATE April 8, 2004		GROUP 2812	
<b>U.S. PATENT DOCUMENTS</b>							
Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
DV ↓ DV	AA	2001/0006759 A1	07/01	Shipley, Jr. et al.	—	—	—
	AB	2002/0076879 A1	06/02	Lee et al.	—	—	—
	AC	2002/0196651 A1	12/02	Weis	—	—	—
	AD	2003/0013272 A1	01/03	Hong et al.	—	—	—
	AE						
	AF						
	AG						
	AH						
	AI						
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes No
	AJ						
	AK						
	AL						
<b>OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	AM						
	AN						
	AO						
EXAMINER <i>Simulard</i>		DATE CONSIDERED <i>12/03/05</i>					
<small>*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.</small>							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268	SERIAL NO. 10/822,118		
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Gurtej S. Sandhu et al.			
				FILING DATE April 8, 2004	GROUP 2812		
<b>U.S. PATENT DOCUMENTS</b>							
*Examiner's Initials	AA	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
DV	AA	10/609,311		Yates			06/03
DV	AB	10/655,997		Daley			09/03
DV	AC	10/879,367		Bialock et al.			06/04
	AD						
	AE						
	AF						
	AG						
	AH						
	AI						
<b>FOREIGN PATENT DOCUMENTS</b>							
		Document Number	Date	Country	Class	Subclass	Translation
							Yes    No
	AJ						
	AK						
	AL						
<b>OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)</b>							
	AM						
	AN						
	AO						
EXAMINER <i>Shuland</i>		DATE CONSIDERED <i>12/03/05</i>					
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.							

Form PTO-1449		U.S. DEPARTMENT OF COMMERCE PATENT AND TRADEMARK OFFICE		ATTY. DOCKET NO. MI22-2268	SERIAL NO. Unknown			
LIST OF ART CITED BY APPLICANT (Use several sheets if necessary)				APPLICANT: Gurtej S. Sandhu et al.				
				FILING DATE April 8, 2004	GROUP Unknown			
<b>U.S. PATENT DOCUMENTS</b>								
Examiner's Initials	Class	Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate	
DV	AA	4,622,735	11/18/86	Shibata				
	AB	4,683,645	08/04/87	Naguib et al.				
	AC	5,236,865	08/17/93	Sandhu et al.				
	AD	5,444,024	08/22/95	Anjum et al.				
	AE	5,470,794	11/28/95	Anjum et al.				
	AF	10/689,958		Basceri			10/20/03	
DV	AG	10/690,029		Derderian et al.			10/20/03	
	AH							
<b>FOREIGN PATENT DOCUMENTS</b>								
		Document Number	Date	Country	Class	Subclass	Translation	
							Yes	No
	AI							
	AJ							
<b>OTHER REFERENCES (including Author, Title, Date, Pertinent Pages, Etc.)</b>								
DV	AK		ABSTRACT: Basceri et al., <i>Atomic Layer Deposition for Nanoscale CU Metalization</i> , 10 pages (pre-April 2004).					
DV	AL		En et al., <i>Plasma immersion ion implantation reactor design considerations for oxide charging</i> , 85 SURFACE AND COATINGS TECHNOLOGY 64-69 (1966).					
DV	AM		Ku et al., <i>The Application of Ion Beam Mixing, Doped Silicide, and Rapid Thermal Processing of Self-Aligned Silicide Technology</i> , 137 J. Electrochem. Soc. No. 2, pp. 728-740 (February 1990).					
DV	AO		Rubin et al., <i>Shallow-Junction Diode Formation by implantation of Arsenic and Boron Through Titanium-Silicide Films and ...</i> , 17 IEEE Transactions on Electron Devices, No. 1, pp. 183-190 (January 1990).					
EXAMINER <i>Brulem</i>		DATE CONSIDERED <i>12/03/05</i>						
*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.								